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| Attendees | SEE ATTACHED LIST | Date/Time: | September 20, 2000, 4:00 PM |
| | | Project No.: | Salem – Manchester 50885<br>10418-C |
| Place: | Running Brook School,<br>Derry NH | Re: | Resource Agency Meeting #5–I-93,<br>Ridership Projections |
| | | Notes taken by: | Bruce Tasker |

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Charlie Hood opened the meeting by introducing the NHDOT staff who are I-93 project team and discussed the coordination process that will be used to review the I-93 project with the Resource Agencies.

Charlie noted that due to the high visibility and the many citizens and environmental groups that have expressed an interest in participating in and determining what improvements should be done for the I-93 project, the Department and the Resource Agencies decided to modify time and location of the I-93 Resource Agency meetings (Resource Agency meetings are normally held on a monthly basis in the morning at the NHDOT headquarters in Concord) to allow more participation and interaction with the project's stakeholder.

- I-93 Resource Agency meetings will generally (and as necessary) be held every third Wednesday of the month at 4:00 PM at the West Running Brook School or other suitable location within the I-93 corridor.

This is the first Resource Agency meeting to be held in the corridor, and the fifth Resource Agency meeting to be held for this project since the I-93 project was reopened last year .

Charlie noted that today's meeting would focus on what transportation alternatives for the I-93 corridor should be considered what alternatives should be constructed.

The Resource Agency representatives in attendance then introduced themselves.

Jeff Brillhart, NHDOT project manager, noted that the I-93 corridor is an important transportation corridor for the south central region and the state of NH. The corridor is over capacity and has safety issues. The project has many elements and issues that need to be addressed including property impacts, noise impacts, impacts to wetlands and prime wetlands, floodplain impacts, air quality impacts, and water quality impacts. There are also concerns with respect to fragmentation of wildlife habitat along the I-93 corridor.

Jeff noted that these issues are very important but, in general, are fairly common to transportation projects. There are fairly good guidelines as to how to address these issues and the Department feels this can be done in a straightforward manner. In addition to these issues, there are two other issues that are not common or routine, which will require input from the Resource Agencies and the public.

- Transportation improvements- reconciling what transportation improvements are most reasonable for the corridor and the State of NH.
- Secondary impacts- quantifying and mitigating secondary impacts that are the result of transportation system improvements making the region more accessible and more susceptible to development.

Intuitively, these issues are of a concern but they are difficult understand and quantify, they are difficult to deal with practically, and they are difficult to reach consensus about.
The meeting today will discuss the first issue as to what transportation improvements are needed. The existing corridor is overburdened and being asked to provide more services than it is capable. To address the I-93 corridor's inability to provide the necessary transportation services, the Department is considering a number of service improvements:

- Widening the highway
- Enhancing bus service
- Constructing high occupancy vehicle lanes (HOV)
- Instituting rail service

The questions that need to be answered are:

- Which services should be instituted and constructed?
- How much of these services should be instituted or constructed?
- When should these services be instituted or constructed?
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The element of time and consideration of a balance to provide for the needs of the highway and the need to encourage people to ride on alternative modes of transportation make this study particularly difficult.

At the last Resource Agency meeting held on August 16, 2000, the discussion was focused on ridership volumes that might be expected if the alternative modes of transportation were provided for the I-93 corridor. The meeting also discussed how the ridership volumes for those modes of transportation could affect the level of service for I-93 south of Exit 1.
Jeff noted that today's meeting would expand on that information for all segments of I-93.
Jeff introduced Marty Kennedy, VHB senior traffic engineer.

Marty Kennedy noted at the last meeting that the methodology for determining the ridership for the rail, bus and HOV was presented for the nine alternatives. One additional alternative (Alternative 10) has been added. Marty provided handouts that shows a matrix of the various mode options for the 10 alternatives, a set of Tables (1-6) that show the average daily traffic (ADT), the design hourly volumes (DHV) and the level of service (LOS) for the 10 alternatives, and Table 7, which shows the LOS comparisons for each of the I-93 corridor segments for three possible alternatives.

Marty discussed the definitions of the various terms that are used within the handouts.

- Level of Service. (LOS) is a qualitative measure to describe the operating conditions along a highway. The LOS is described by letter designations A through F, which identify how well the facility is operating, A being the best operating condition and F the worst condition, or failure. LOS E is the roadway's physical capacity.

- Design Hour. The term design hour is the hour for which a roadway is designed. The standard (recognized nationally for determining the number of lanes to carry traffic on a highway) design hour is what is called the 30th highest hour. Among all the hours in a year (i.e. 365 days x 24 hours/day = 8,760 total hours), the 30th highest hour is the hour with the 30th highest traffic volume. Marty reviewed a graph of the traffic volume recordings from a permanent traffic count station along I-93. The graph shows the traffic volumes vs. the total hours of the year. The 30th highest hour falls at the "elbow" of the graph, which is the case for most highways, and reflects a Design Hourly Volume that is reasonable to meet most operating conditions of a highway without designing for the worst case condition.

- Design Criteria. To determine the number of lanes that are needed along the highway, design criteria have been established by the NHDOT. The design criteria, used by the Department are generally accepted nationally and are for the future design year 2020 (20 year design period) and a design hour condition which is the 30th highest hour. To determine the number of lanes needed to manage the through traffic (i.e. exclusive of traffic management lanes which include acceleration, deceleration, weaving, and merging type lanes) along the I-93 corridor segments for the design year traffic, the Department has established that LOS C is desirable and a LOS D would be acceptable. Also, generally speaking the Department would not build more than eight lanes, again exclusive of any necessary traffic management lanes.

Marty also noted that a very important point to consider is that all of the 2020 traffic volume projections for this project are conservative, i.e. relatively low. The growth rates used within the Department's statewide traffic model to project the future 2020 traffic volumes for the corridor are between 1.0 percent and 1.5 percent. As a consequence, when evaluating the operation of a segment, it is quite likely that the anticipated LOS for that segment will be reached. There are no built-in operational tolerances for the model growth rates used.
Marty noted that based on these design criteria and prior to any considerations of travel demand management (TDM) measures such as rail, transit, and HOV lanes, etc., which may reduce the total number of single occupancy vehicles for the 2020 design year, the roadway section along the I-93 corridor would require the following widening:

- A 10-lane section south of I-93 Exit 1.
- An 8-lane section between Exit 1 and Exit 3.
- A 6- lane section between Exit 3 and I-293 to the north

Marty discussed the peak period condition that occurs along I-93 today. The peak period condition is really a 3+ hour peak period condition for the I-93 corridor. I-93 is at LOS E and F today in the peak hours south of Exit 4, and because of this high demand a condition called "peak hour spreading" occurs in both the AM and PM periods. Marty noted that what this means is that in the morning for example, most commuters would like to get in their car and start heading south on I-93 at 7 to 8 AM, but because of the traffic congestion, some of these commuters get up earlier or leave later in the morning which spreads the demand and congestion over a three hour period. (The Department's permanent count station data recorders along I-93 show three fairly equal peak period hours during the morning commute.)

If people start using rail or bus service or start carpooling in an HOV, the peak 3-hour commuter periods will start shrinking to 2-1/2 hours and possibly 2-hours during the peak periods in the morning or evening. While the length of peak period congestion will shrink, the peak hour will remain congested. Those driving in the peak hour, but who start using rail or bus service, will be replaced by those driving in the peak period, although previously not in the peak hour. Consequently, the vehicle reductions will first occur during the hours before and after the peak design hour and the peak design hour volume will continue to be high.

Marty also explained that in order to get people to shift from their cars to other travel modes, the highway facility typically must have some level of congestion, otherwise people will not get out of their cars. Also, as people get out of their cars and the 3-hour peak period shrinks, there becomes a balance point that only so many people can or will shift to these other travel modes. A stability in the transportation system is reached between the single occupancy vehicles still remaining on the highway and the new or increased ridership using the rail, bus and/or the HOV lane.

Marty noted that during the AM and PM peak periods there is virtually no reduction in traffic volumes for the Design Hour as a result of the reductions associated with the implementation of the other travel modes discussed at the last meeting. Marty emphasized that while there is no reduction to the Design Hour Volumes for the year 2020, that does not mean that implementing these other travel modes should not be done; there is still the benefit of shrinking the 3-hour peak period down to a two- hour or a one-hour peak period.

Marty commented that Table 1 (for the area south of Exit 1), which was discussed at the previous meeting, has been updated with a new Table 1. The revised Table 1 and the new Tables 2 through Table 6 now reflect the Directional Design Hourly Volumes (DDHV). The table includes the LOS for the peak hour DDHV volume and the LOS for the DDHV volumes for the "hour before" and the "hour after". All the alternatives in Table 1, with the exception of Alternative 10, show a LOS F during the design hour. Alternative 10 shows a LOS E, which is capacity. Marty explained that to reach LOS D, which would be acceptable according to the Department's design criteria, an alternative with a 10-lane section would be required . The hours before and the hours after for this section of I-93 also have poor levels of service LOS E and LOS F.

> DDHV- The DDHV is the design hour volume ($30^{th}$ highest hour) that is in the peak direction. In this case it is calculated as the ADT x 9.4% x 60% where 9.4% is the $30^{th}$ highest hour percentage of the daily traffic volume and 60% reflects the adjustment for the peak direction volume.

Marty noted that for an HOV lane to operate efficiently and effectively, HOV lane volume should be between 700 to 1000 vph. If there is more than 1000 vph in an HOV lane, the lane will be congested and the incentive to travel by HOV is reduced. If there are less than 700vph in an HOV lane, people who are traveling in the adjacent congested general use lanes will perceive that the HOV lane is being under utilized and will lobby for the HOV lane to be a general use lane. The HOV lane volumes for the HOV lane south of Exit 1 falls into the 700vph to 1000vph range, but the HOV lane volumes decrease to the north bringing into question the effectiveness of the HOV lane. In addition, the demand is even further reduced during the hour before and hour after the design hour. Marty then described Table 7, which was developed to provide a summary comparison of three of the ten alternatives. The three alternatives include varying lanes with the intent of comparing similar mode combinations.

- Alt.3 (no/build w/enhanced I-93 Rail)
- Alt. 6 (3 Lanes w/Bus)
- Alt.10 (4 Lanes w/Bus)

Even though Alternative 3 includes rail service instead of bus service, the Alternative is comparable to Alternatives 6 and 10 because the Enhanced I-93 Rail service draws from a similar pool of potential transit users that would use bus service.

Alternative 3 is essentially a no-build condition. Alternative 6 involves widening I-93 by one lane in each direction. In doing so, the southern half of I-93 operates at an unacceptable LOS but the northern half operates at an acceptable LOS. Alternative 10 involves widening I-93 to 4-lanes and north of Exit 1 meets the Department 2020 acceptable LOS D highway design criteria.

**Questions and Answers:**

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| Rosemary Monahan. | Does the model assume the HOV lane goes all the way to Boston where there is an existing HOV lane or does that lane only goes to MA 128? Does that make a difference in the ridership? |
| Howard Muise. | The model assumes the HOV lane ends at MA 128. By taking the HOV lane to MA 128 there is sufficient travel time savings for NH users to encourage a shift to HOV. |
| Jeff Brillhart. | Studies completed by Mass Highway a few years ago have indicated that if the HOV currently ending in Somerville were extended to the north, the lane would draw too many HOV's and not be effective. |
| Rosemary Monahan. | (1) What amount of the traffic volume is induced travel and is the induced travel short term or long term? (2) How sensitive are the ridership volumes to the assumed parameters such as parking cost and availability? |
| Howard Muise. | Some sensitivity analysis has been done. Changing the cost of parking was looked at. For example, with a doubling in the average parking cost in Boston to $10.00, the ridership for the East Rail Line would increase in the order of 60%. |
| Rosemary Monahan. | I would be interested in seeing where the ridership areas are and the split between the driving trips to Boston and the northern Massachusetts suburbs. |
| Howard Muise. | Most of the driving trips are related to Boston. However, the enhanced rail and enhanced bus alternatives also provide access to employment centers along I-93 and access to the Woburn Transportation Center at MA 128. |
| Rosemary Monahan. | I would like to see a list of the assumptions used for the ridership projections and also some of the sensitivity runs that were completed. From a sensitivity point of view, what's the low and high end of the ridership based on the various assumptions used? Is that something that is relatively easy to do? |
| Howard Muise. | The list of assumptions for the ridership analysis was included in the handout provided at the August 16 Resource Agency meeting. Providing an analysis of the low and high ends would be complicated to show for all of the alternatives. One of the rail line alternatives was tested with changes to some of the assumptions to understand the sensitivity. |

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| Marty Kennedy. | Relative to induced travel, anytime capacity is added to a system development to some degree is fostered. At the next meeting, a discussion relative to induced growth and secondary impacts is proposed. |
| Rosemary Monahan. | My concern is induced travel, which may result from additional people moving to this area, or people who are shifting from another road to this road, or people shifting their time of travel. Best estimates from data and observations around the country are that for every 10 percent increase in capacity, there is a 2-5 percent increase in induced travel. It does not look like the Department's numbers are taking this growth into account. If you add one lane to the system that is a 50 percent increase capacity. Two additional lanes are doubling the capacity. FHWA has some sketch models that could be used to estimate the induced travel. |
| Jeff Brillhart. | This idea of induced travel is very new and very involved. There is a fair amount of literature with a number of conflicting opinions. There are a number of types of induced travel, some more consequential than others. Current standard modeling practices do not specifically address induced travel, although they may to varying degrees account for some types of induced travel. The Department needs to research this further and come to terms with it. It may be that the decision-makers need to be aware of this phenomenon, but beyond that it is unclear how it should be addressed. |
| Linda Wilson. | The bottom line is there are a lot of people in NH that want to work south of the NH/MA border because they get paid more. However, they want to live in NH because they like it better. It seems we need a NH NAFTA with MA to keep people from crossing the border. |
| Jeff Brillhart. | NH supports good transportation so that businesses will locate in NH and people will not have to commute so far. The down side is this will result in more development, which may have adverse impacts to the environment. The project is perceived as a balancing act between addressing mobility and the implications relative to quality of life issues. The Department nor the Resource Agencies are in a position to resolve this issue. Ultimately the people in NH and their decision-makers need to be educated to the issues and decide how to proceed. The issues are important and they are complicated. |
| Bill Neidermyer. | Relative to HOV lanes, can't the Federal Highway Administration make the States of Massachusetts and New Hampshire come together and build something in conjunction with one another? |
| Bill O'Donnell. | The FHWA can influence how funds are spent for a specific improvement project, but FHWA cannot pick the projects or the types of projects for the states. FHWA's role is limited. FHWA can suggest coordination, but we cannot force the construction of an HOV lane for example. |
| Ken Kettenring. | I think we should be talking with Massachusetts on issues of common interest. |

Jeff Brillhart. A number of these I-93 ridership issues are Massachusetts dependant; rail in the median and HOV lanes, for example. The ridership analysis was done in a manner so as to not unduly constrain the ridership volumes, by somehow limiting latent demand. That is, we have tried to be reasonable in developing parameters for the various service modes to allow the potential ridership to be maximized. We wanted to show the greatest ridership possible given what appears to be reasonably available today and in the foreseeable future.

Ken Kettenring. Why not take out the transfer at Lawrence Station and assume Massachusetts would be agreeable to this?

David Wilcock. The travel timesavings that would be realized is only a 5-minute penalty. We could take out the penalty to show the increase, but the new volumes would not be significantly higher.

Ken Kettenring. Why not assume that MA and NH could agree to build and operate a 120-140 mph train service, which is not uncommon on rail lines? The travel time would be decreased greatly, which would increase the ridership. I would like to weigh this idea against the other options. The comparison should be done.

David Wilcock. The technology exists for high-speed trains. For intercity service, high-speed service is practical. For commuter service with stations close together, high-speed service is not as practical. There are a lot of grade crossings to deal with. There is also the problem with developing this facility in highly developed urban areas where it is not advisable to have trains moving that fast.

Howard Muise. Increasing the speed will have an effect on increasing the ridership, but then the limiting factor would be the number of people that are trying to get from the corridor to the Boston area. The pool may not big enough to increase ridership by a factor of two or three.

Ken Kettenring. I believe the following combination should be evaluated. Two general use travel lanes, an HOV lane and expanded bus service (which would take care of employment centers along the I-93) and rail service along the East Rail Line all the way to Boston. What would the level of service be for the highway?

Jeff Brillhart. The Department believes that the 120-140 mph commuter service is not realistic and the alternative would be expensive to study. I do not believe we should study things that do not have much of a chance of being implemented.

Ken Kettenring. Given all the advances in technology that have occurred in the last 20 to 30 years, I believe rail technology will have similar break-throughs and such service will be available in the foreseeable future. I feel that the alternatives that the Department has presented so far are leading to one conclusion. Are you saying that we cannot consider this alternative, just for comparative purposes?

Jeff Brillhart. The alternative you have mentioned is Alternative 5 without the 140 mph train.

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| Joe Fontaine. | Why are you not presenting all the Alternatives in Table 7. Also, when you look at the 2010 numbers, do they indicate a better LOS than the 2020 numbers? |
| Marty Kennedy. | Table 7 shows a range of comparisons. All the LOS designations for all the alternatives are in the other Tables. The 2010 numbers in general show a one-letter grade improvement in LOS when compared to the 2020 numbers. |
| Joe Fontaine. | Base on your presentation, as I understand it, the approach is to expand the highway and then between 2010 and 2020 try to achieve some of the reductions that some of these other modes would achieve? This sounds a little backward to me, wouldn't you want to achieve the reductions before you expand the highway? |
| Marty Kennedy. | The alternatives were developed for comparative purposes, to evaluate the merits of various options in mode and highway widenings. The next step is to draw conclusions and make recommendations. Recommendations could involve phasing in options over time. |
| Joe Fontaine. | What is the status of the 2010 traffic numbers that you mentioned in your presentation? The 2020 LOS for Alt 6, in Table 7, with three lanes for example, show for some segments of I-93 a LOS F. Would these segments still be a LOS F for 2010 opening year or would the LOS improve? |
| Marty Kennedy. | The LOS for the 2010 year improves generally (although not all segments improve) one level of service i.e. LOS F to LOS E, and LOS E to LOS D. |
| Question. | What is the assumption as to how often the bus runs? What is the LOS for HOV, bus or rail. Can we translate these improvements into some type of time comparison between the transit modes and cars? |
| David Wilcock. | There is not a LOS measure for train service. Generally you look at the ridership levels. We have an overall travel time between stations. You might look at how long it takes to get to Boston in a car vs. a train. |
| Mary Kennedy. | Theoretically we could compute the LOS for the HOV lane, but in this case the LOS would be good given the relatively low volumes. |
| Comment. | Mr. Kettenring should discuss with Commissioner Kenison material provided by the NH Rail Revitalization group relative to the potential to redevelop the East Rail Corridor. |
| Cliff Sinnott. | Where does the $5.00 for the parking assumption used in the model come from? |
| Howard Muise. | We developed calculations based on available parking data assembled by the Central Transportation Planning staff (CTPS) for the City of Boston. |
| Cliff Sinnott. | What about the ability to transfer from the Enhanced Rail Service to the employment centers in Massachusetts; is that factored into the ridership evaluation? |

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| Howard Muise. | We assumed that there would be some type of shuttle bus between the train and the employment centers. |
| Cliff Sinnott. | Are the results that we are getting from the model comparable to riderships on existing rail or bus service in other locations in other states? |
| Howard Muise. | We did some comparisons, but such comparisons are difficult because of the variety of factors that influence ridership. For instance, existing highway access will affect ridership volumes. Some communities have indirect access to Boston like Attleboro, MA. However, Manchester and Southern NH have highway access that is relatively direct and convenient, even though I-93 is congested. |
| Leigh Komornick. | What percentage of the daily traffic volume is the 30th highest hourly volume? |
| Marty Kennedy. | That percentage is 9.4%. |
| Leigh Komornick. | The alternatives with three lanes or four lanes show an increase in daily traffic. For example, Table 1 goes from 135,100 vpd for 2-lanes to 142,200 vpd with 3-lanes to 143,600 with 4-lanes. Why is that? What is the term "unadjusted" mean in the Table? |
| Marty Kennedy. | As mentioned previously, with the added lanes on I-93 there is an increase in available capacity. With the capacity increase the traffic model compares the time it takes to travel on the wider I-93 versus another parallel roadway being used to complete a trip. With the added capacity some vehicles will divert from the more congested roadway to the wider I-93. Therefore the increase in traffic volume. The more available capacity the more diversion takes place. |
| Leigh Komornick. | Why isn't the Federal Transit Authority here to discuss the bus and rail options? |
| Jeff Brillhart. | Many agencies were invited. The mailing list has over 60 invitees. They decided not to attend. |
| Comment. | What about a transportation bike path that can be used by bicyclists? Such a facility could reduce traffic on the highway. A connection to the park and ride areas could be made to the trails. The existing East Rail Corridor could be upgraded for bikes and then in the future converted back for trains with a provision at that time for a parallel bike facility. |
| Jeff Brillhart. | I am not sure how or if it's possible to generate bike rider volumes. |
| Comment. | There is a model available from the Rail to Trails Conservancy. There is a lot of information that might be helpful on the web. |
| Jeff Brillhart. | We'll look into it. We will be looking at enhancing trail and bike connections as part of this study. I don't think that the bike facilities would make a substantial difference to reducing the overall traffic congestion on I-93. |

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| | We need to stay focused on what we are trying to do here. That is, fix a segment of highway that has serious deficiencies relative to capacity and safety. Other issues need to be taken into account relative to the long term needs of the State and the region, but highway needs to be addressed. |
| Kate Hartnett. | Is the basic purpose of this project to relieve commuter generated traffic? Also, do you have a list of state agencies that were invited? Was DRED invited? |
| Jeff Brillhart. | The basic premise is to relieve congestion and improve safety along this corridor. That is when the 30th highest hour volumes occur. There is a list of agencies that were invited, which I can get you. DRED was invited. |
| Cliff Sinnott. | I am trying to get a comfort level that we a generating realistic transportation numbers. The ridership for bus and trains that we are getting from the model, are these comparable and reasonable? Are they above normal or below normal and what makes them that way. Do we have the daily ridership numbers available? |
| Howard Muise. | The numbers appear to be reasonable. For every assumption that was used, we looked at the reasonableness of the assumption by itself and in combination with the other assumptions. We have run the model to compare with the existing bus service to get a reasonable base calibration. The calibration is not exact, but we feel that the numbers are in the range they need to be in. Not everyone is traveling to downtown Boston, where the East Rail and Basic bus service are providing the service. In order to increase the ridership and get more people out of their cars, additional service was provided to other work destinations with the Enhanced Rail and Enhanced Bus service options. Even that market is limited, but the model does provide at least some opportunity to destinations in northern Massachusetts. The daily rail and bus ridership numbers are in the second handout. That was discussed at previous Resource Agency meetings and the last ATF meeting. |
| Jeff Brillhart. | I have asked the same questions, and VHB has provided some ridership numbers for the existing MBTA line going into Boston at various stops. Those numbers were in the hundreds and low thousands and consequently of similar magnitude to those generated for this I-93 study. |
| Comment. | What was the rail ridership projection for Lowell to Nashua extension? |
| David Wilcock. | The daily ridership for commuter rail for the two NH stations was approximately 900. |
| Kate Hartnett. | I am with the NH Comparative Risk project. I would like to commend the Department on the forum and format of the project process. I do not think this project is just a highway project, but instead a land use development project. |
| Comment. | What is the LOS at the MA/NH border with the 10-lanes? |

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| Jeff Brillhart. | We have not run that analysis because the Commissioner does not think NH will build more than 4-lanes in each direction. However there is the caveat that MA could build 5-lanes and NH would then need to rethink what the upper limit in the number of lanes should be. I would also note that there will be some additional traffic management lanes to handle traffic at interchange areas and areas such as the Salem rest area and the Exit 1 off ramp. |
| Comment. | So the LOS for the 2020-year along I-93 will be at capacity. Therefore the local roads will not see any real benefit from this improvement in the 2020 year, the local roads will still be congested. |
| Linda Wilson. | There are other incentives that would help the level of congestion like changing or staggering work hours. That could be looked into. |
| Jeff Brillhart. | Other states have looked into and tried these alternative measures. The reality is that the percentage is not sufficient to have a real impact on reducing the congestion. In a rural, independent state like NH, such TDM measures become even more difficult to implement. This will be discussed in the environmental document. |
| Joe Fontaine. | Why are the unadjusted traffic volumes in Table 1 not consistent in Table 1 relative to the total number of lanes? The HOV volumes do not appear to make up the difference. |
| Marty Kennedy. | The higher volumes associated with an increase in lanes reflects traffic diverted from other roadways to the improved I-93 corridor. |
| Joe Fontaine. | You mentioned that a sensitivity analysis was done for the rail by varying the amount of subsidy. Was that done for the bus? |
| Jeff Brillhart. | For every alternative that has a railroad component, we have added a subsidy for the bus to make it a fair ridership comparison. How real this assumption is, remains to be seen. Among other things, NH has a constitutional amendment that would make this difficult to happen. However, for this study we are trying within reason to maximize the ridership on the alternative modes. |